

CLAIMS

1. A process for the production of soluble polymer granules suitable as an additive in detergents and/or cleaning compositions, characterized in that a water-based preparation of the polymer which contains at least 30% by weight of polymer is granulated and simultaneously dried in a round fluidized bed in which an eddy flow is produced about the vertical axis of the dryer via an air inlet above the diffuser plate.
2. A process for the production of soluble polymer granules as claimed in claim 1, characterized in that the process is carried out in a round fluidized bed in which an additional air supply system is disposed above the diffuser plate (7), this additional air supply system having at least two air injection tubes (3) which are arranged at a uniform distance apart and at the same level above the diffuser at an angle of incidence α of at least 30° and at most 90°.
3. A process for the production of soluble polymer granules as claimed in claim 1 or 2, characterized in that the process is carried out in a fluidized bed in which the additional air supply system is located above the diffuser in such a way that the air injection tubes (3) are situated at a maximum of 50% and preferably at 10 to 30% of the resting height of the bed material.
4. A process for the production of soluble polymer granules as claimed in any of claims 1 to 3, characterized in that the process is carried out in a round fluidized bed in which the additional air supply system comprises more than two, preferably four, air injection tubes (3).
5. A process for the production of soluble polymer granules as claimed in any of claims 1 to 4, characterized in that the process is carried out in a round fluidized bed in which the angle of incidence of the injection tubes (3) is 30° to 75°, preferably 45° to 70° and more preferably 60°.
6. A process for the production of soluble polymer granules as claimed in any of claims 1 to 5, characterized in that solutions of polymeric polycarboxylates, preferably homopolymers or copolymers of acrylic,

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methacrylic or maleic acid or water-soluble salts of these polymers and most preferably polymers with a molecular weight of 500 to 100,000 g/mol are used as the water-based polymer preparation.

7. A process for the production of soluble polymer granules as claimed
5 in any of claims 1 to 5, characterized in that solutions of homopolymers or copolymers of vinyl pyrrolidone which has a molecular weight of 1000 to 200,000 g/mol and preferably in the range from 1000 to 100,000 g/mol are used as the water-based polymer preparation.

8. A process for the production of soluble polymer granules as claimed
10 in any of claims 1 to 6, characterized in that, besides polycarboxylates, dextrans are also used as polymers, either a homogeneous solution of the two polymers being sprayed into the granulation chamber or the dextrin being introduced first in solid form and a solution of the polycarboxylate being sprayed in.

9. A process for the production of soluble polymer granules as claimed
15 in any of claims 1 to 8, characterized in that inorganic carrier materials, preferably sodium sulfate, sodium carbonate or zeolites are used as the admixing component.

10. Soluble polymer granules suitable as an additive in detergents
20 and/or cleaning compositions, characterized in that the granules are spherical and contain 50 to 95% by weight polymer and at least one admixing component.

11. Soluble polymer granules as claimed in claim 10, characterized in
25 that the polymers are polymeric polycarboxylates, preferably homopolymers or copolymers of acrylic, methacrylic or maleic acid or water-soluble salts of these polymers and most preferably polymers with a molecular weight of 500 to 100,000 g/mol.

12. Soluble polymer granules as claimed in claim 10, characterized in
30 that the polymer is a homopolymer or copolymer of vinyl pyrrolidone which has a molecular weight of 1000 to 200,000 g/mol and preferably in the

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range from 1000 to 100,000 g/mol.

13. Soluble polymer granules as claimed in claim 10 or 11, characterized in that the granules contain dextrans and polymeric polycarboxylates, the ratio of dextrin to polymeric polycarboxylate in the granules preferably being 4:1 to 1:2.

14. Soluble polymer granules as claimed in any of claims 10 to 13, characterized in that inorganic carrier materials, preferably sodium sulfate, sodium carbonate, sodium citrate or zeolites are used as the admixing component and in that the content of carrier material in the granules is below 40% by weight and preferably below 25% by weight.

15. Soluble polymer granules as claimed in any of claims 10 to 14, characterized in that the polymer content of the granules is in the range from 75 to 90% by weight.

16. A detergent or cleaning composition, characterized in that, besides surfactant-containing constituents, it contains soluble polymer granules selected from the polymer granules claimed in claims 10 to 15 or the products of the process claimed in claims 1 to 9.

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